STEREO INTEGATED AMPLIFIER

KA-7010

SERVICE MANUAL

KENWOOD

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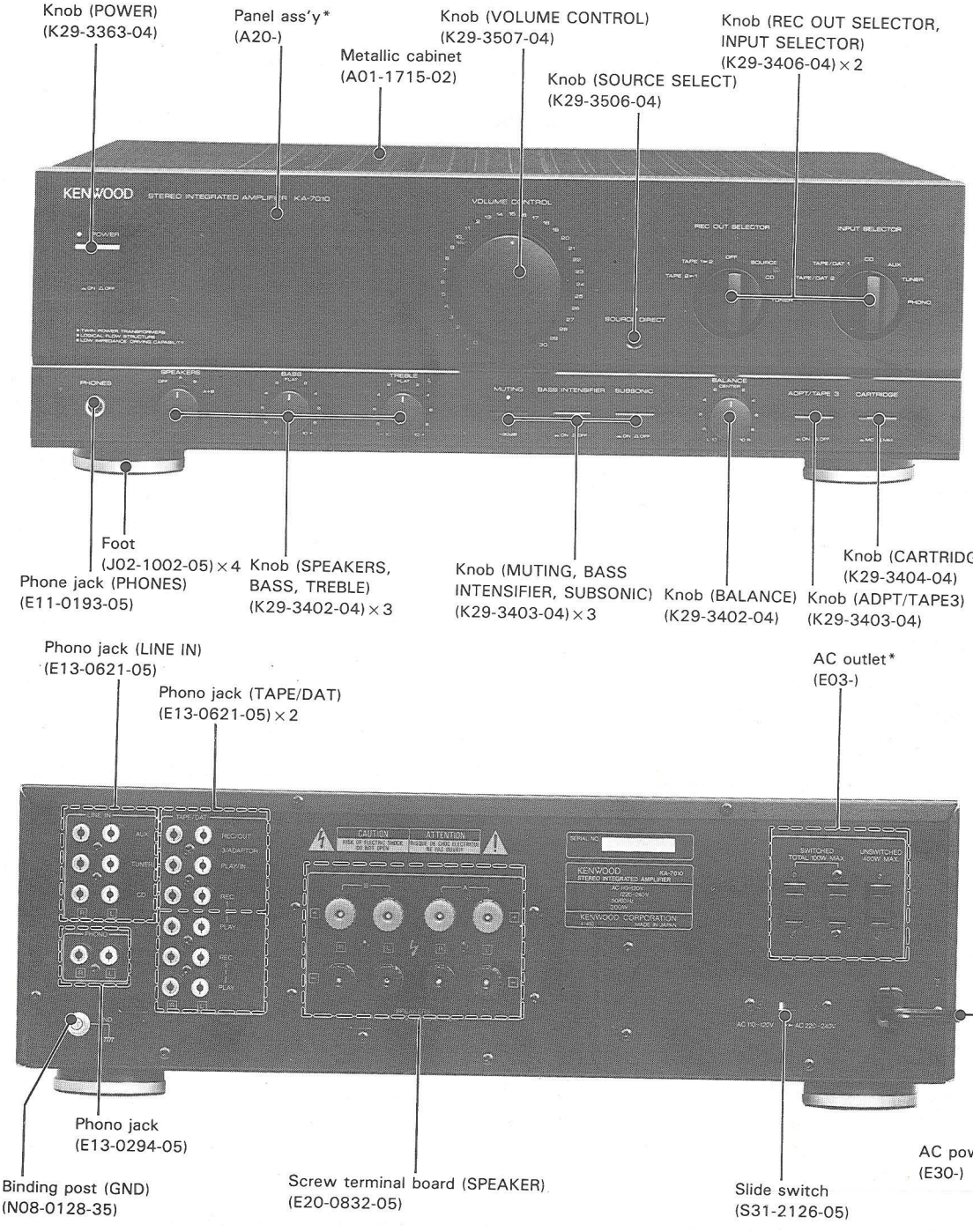
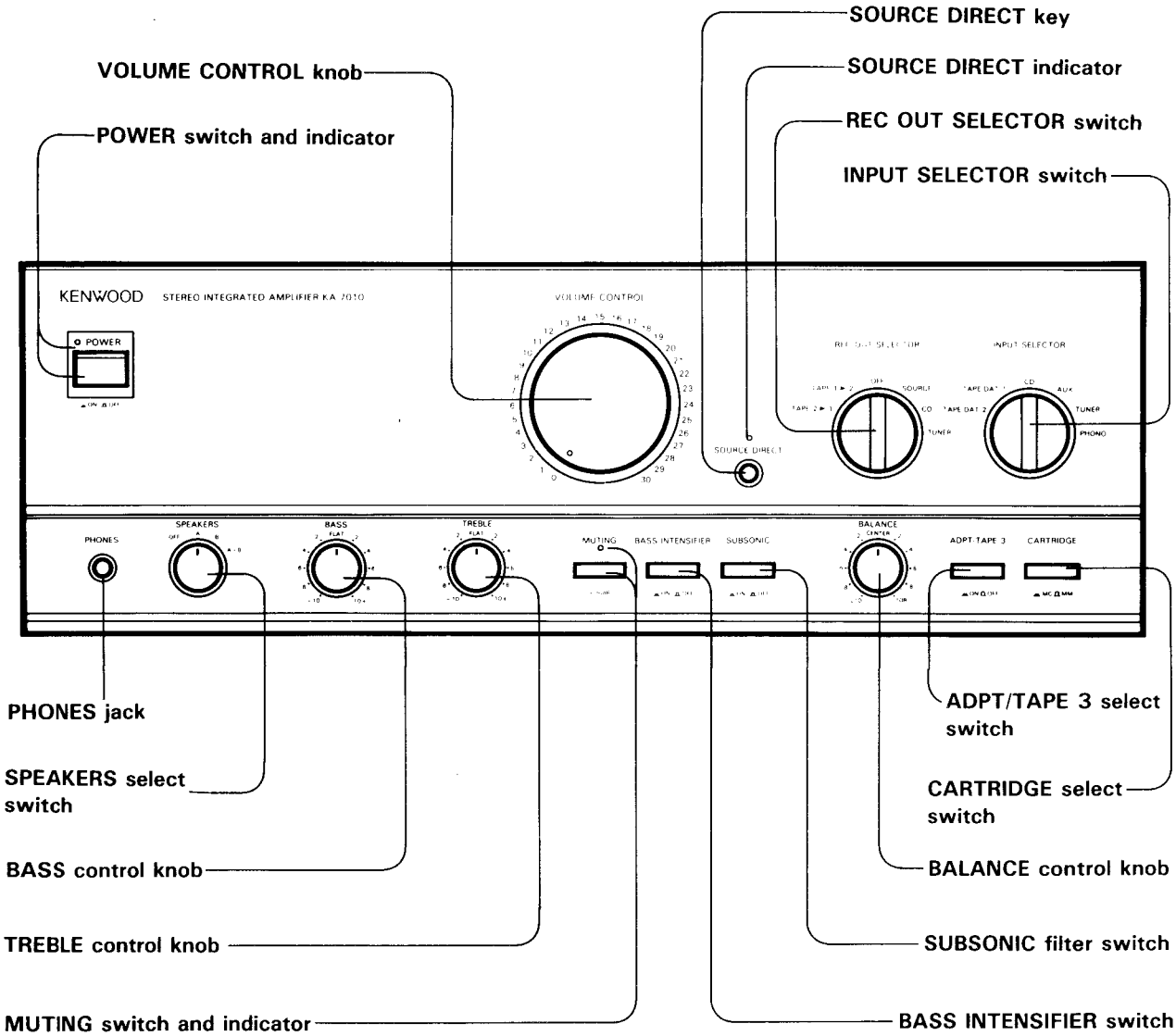
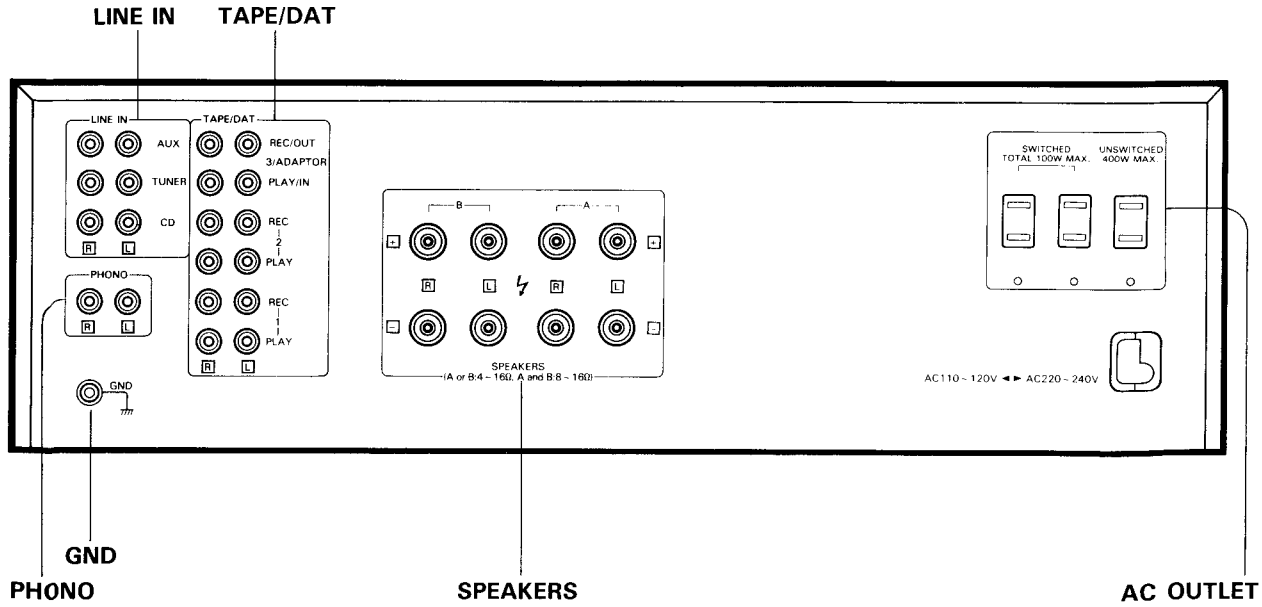


* **Refer to parts list on page 21.**

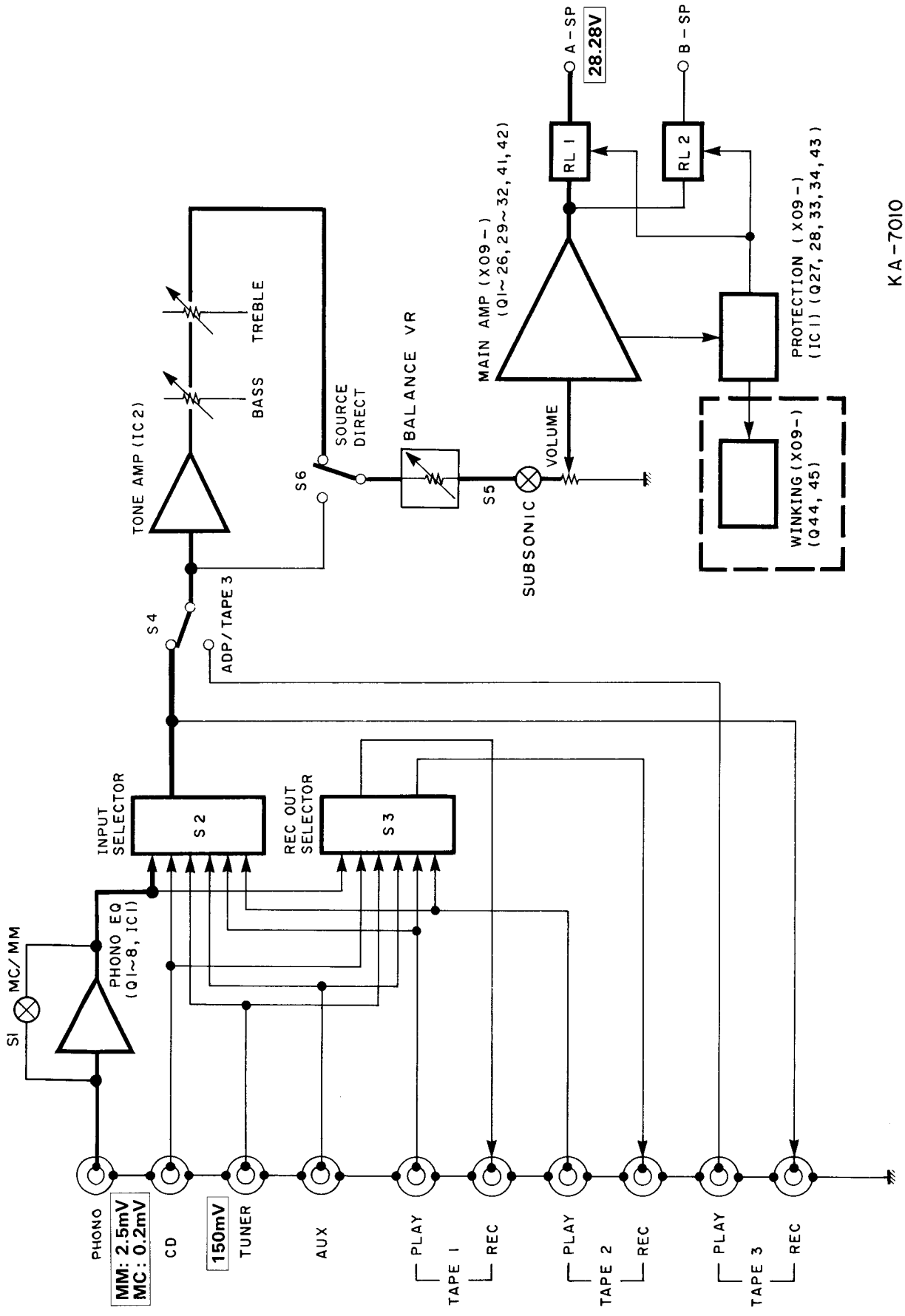
KA-7010

CONTROLS AND INDICATORS





BLOCK & LEVEL DIAGRAM



KA-7010

CIRCUIT DESCRIPTION

Pre amplifier unit (X08-226X-XX)

Ref. No.	Components	Use/Function	Operation/Condition/Compatibility
IC1	NJM4560D-N	Phono equalizer amp	
IC2	M5218P-A	Tone amp	
Q1 ~ 4	2SC1740S	Cascode circuit	2SC945 (A)
Q5 ~ 8	2SK170	Input differential amp	
Q11, 12	2SK105	Constant-current FETs for AVR	2SK246
Q13	2SA1110	AVR control transistors	
Q14	2SC2590	AVR control transistors	
Q15, 16	2SA733 (A)	Power startup control	2SA9335

Audio unit (X09-280X-XX)

Ref. No.	Components	Use/Function	Operation/Condition/Compatibility
IC1	μPC1237HA	Protection IC	
Q1 ~ 4	2SA992	Main amp input differential amp	
Q5 ~ 8	2SA992	1st-stage cascode	
Q9 ~ 12	2SC2632	2nd-stage differential amp	
Q13, 14	2SC2632	2nd-stage cascode	
Q15, 16	2SA1124	Current mirror	
Q17, 18	2SC2632	2nd-stage cascode	
Q19, 20	2SC2631	Predriver	
Q21, 22	2SA1123	Predriver	
Q23, 24	2SC3944	Driver	
Q25, 26	2SA1535	Driver	
Q27, 28	2SC1845	Power transistor current detect	
Q29, 30	2SA1110	AVR	
Q31, 32	2SA733 (A)	Constant-current circuit	2SA933S
Q33, 34	2SA992	Power transistor current detect	
Q41, 42	2SC1845	Power delay circuit	
Q43	2SA992	Current detect inverter	
Q44, 45	2SC945 (A)	LED winker	

(Y08-363X-XX)

Ref. No.	Components	Use/Function	Operation/Condition/Compatibility
Q1, 2	2SC2922*5	Final transistor	
Q3, 4	2SA1216*5	Final transistor	
Q5, 6	2SC4137	Bias current compensation	

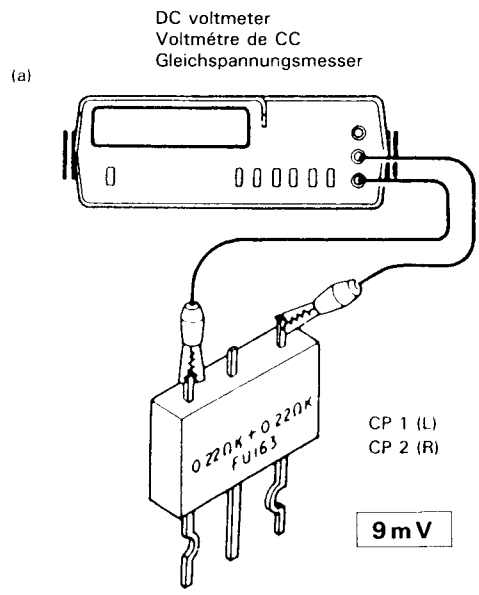
ADJUSTMENT/REGLAGES/ABGLEICH

No.	ITEM	INPUT SETTINGS	OUTPUT SETTINGS	AMPLIFIER SETTING	ALIGNMENT POINTS	ALIGN FOR	FIG.
1	IDLE CURRENT	–	Connect a DC voltmeter across CP1 CP2	VOLUME: 0	VR1 (L) VR2 (R) (X09-)	9mV	(a)

N°	ITEM	REGLAGE DE L'ENTREE	REGLAGE DE LA SORTIE	REGLAGE DE L'AMPLIFICATEUR	POINTS DE L'ALIGNMENT	ALIGNER POUR	FIG.
1	COURANT DE POLARISATION	–	Connecter un voltmètre de CC SUR CP1 CP2	VOLUME: 0	VR1 (G) VR2 (D) (X09-)	9mV	(a)

NR.	GENGENSTAND	EINGANGS-EINSTELLUNG	AUSANG-EINSTELLUNG	VORSTÄRKER-EINSTELLUNG	ABGLEICHE-PUNKTE	ABGLEICHEN FÜR	ABB.
1	LEERLAUFSTROM	–	Einen Gleichspannungs-messer über CP1 CP2 anschließen.	VOLUME: 0	VR1 (L) VR2 (R) (X09-)	9mV	(a)

(a)



VOLTAGE TABLES

PRE-AMPLIFIER UNIT (X08-226X-XX)

IC1 (1/2)

1	0V
2	6.3V
3	6.3V
4	−20V

IC1 (2/2)

5	6.3V
6	6.3V
7	0V
8	20V

IC2 (1/2)

1	0V
2	0V
3	0V
8	—

IC2 (2/2)

4	−15V
5	0V
6	0V
7	0V

Q1

E	3V
C	6.3V
B	3.6V

Q2

E	—
C	—
B	—

Q3

E	3.0V
C	6.3V
B	3.6V

Q4

E	—
C	6.3V
B	—

Q5

D	−0.2V
S	3.0V
G	0V

Q6

D	—
S	—
G	—

Q7

D	−0.2V
S	3.0V
G	0V

Q8

D	—
S	—
G	—

Q11

D	−20V
S	−42V
G	−42V

Q12

D	42V
S	20.7V
G	20.7V

Q13

E	−20V
C	−42V
B	−20.7V

Q14

E	20V
C	42V
B	20.7V

Q15

E	—
C	—
B	−0.7V

Q16

E	20V
C	—
B	19.4V

MAIN UNIT (X09-280X-XX)

IC1

1	0V
2	0V
3	0V
4	—
5	—
6	0.6V
7	2.2V
8	3.3V

Q1

E	0.7V
C	−7.1V
B	0V

Q2

E	—
C	—
B	—

Q3

E	0.7V
C	−7.1V
B	0V

Q4

E	—
C	—
B	—

Q5

E	−7.1V
C	−50V
B	7.7V

Q6

E	—
C	—
B	—

Q7

E	−7.1V
C	−50V
B	7.7V

Q8

E	—
C	—
B	—

Q9

E	−50.7V
C	49.2V
B	—

Q10

E	—
C	—
B	—

Q11

E	−50.7V
C	−49.2V
B	−50V

Q12

E	—
C	—
B	—

Q13

E	−49.2V
C	—
B	—

Q14

E	—
C	—
E	—

Q15

E	47.9V
C	1.8V
E	47.2V

Q16

E	—
C	—
E	—

Q17

E	−49.2V
C	45V
E	—

Q18

E	—
C	—
E	—

Q19

E	1.2V
C	60V
E	—

Q20

E	—
C	60V
B	—

Q21

E	−1.2V
C	−60V
B	−1.8V

Q22

E	—
C	−60V
B	—

Q23

E	0.6V
C	6.0V
B	1.2V

Q24

E	—
C	60V
B	—

Q25

E	−0.6V
C	−60V
B	−1.2V

Q26

E	—
C	−60V
B	—

Q27

E	0V
C	60V
B	0V

Q28

E	—
C	—
B	—

Q29

E	−51.6V
C	−60V
B	−52.2V

Q30

E	—
C	−60V
B	—

Q31

E	14.8V
C	3.8V
B	14.2V

Q32

E	—
C	—
B	14.2V

Q33

E	0V
C	−1.2V
B	0V

Q34

E	—
C	—
B	—

Q41

E	—
C	20V
B	0V

Q42

E	19.8V
C	20.8V
B	20.5V

Q43

E	60V
C	0V
B	60V

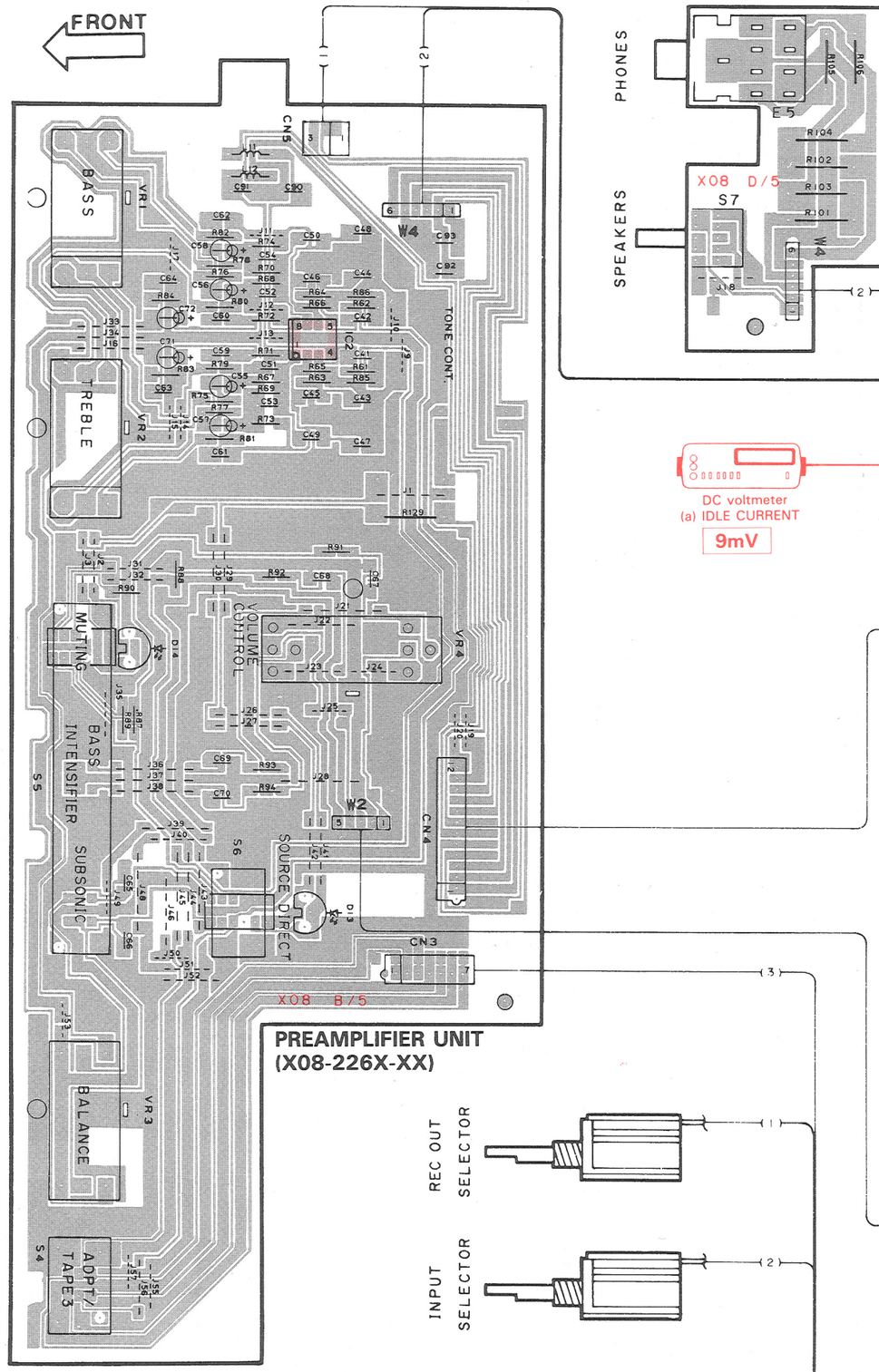
Q44

E	4.9V
C	20V
B	1.2V

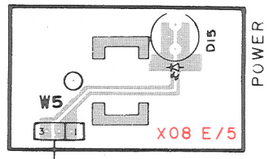
Q45

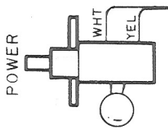
E	4.9V
C	5V
B	5.6V

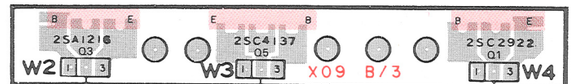
PC BOARD (Component side view)

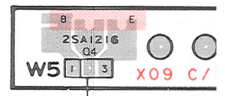


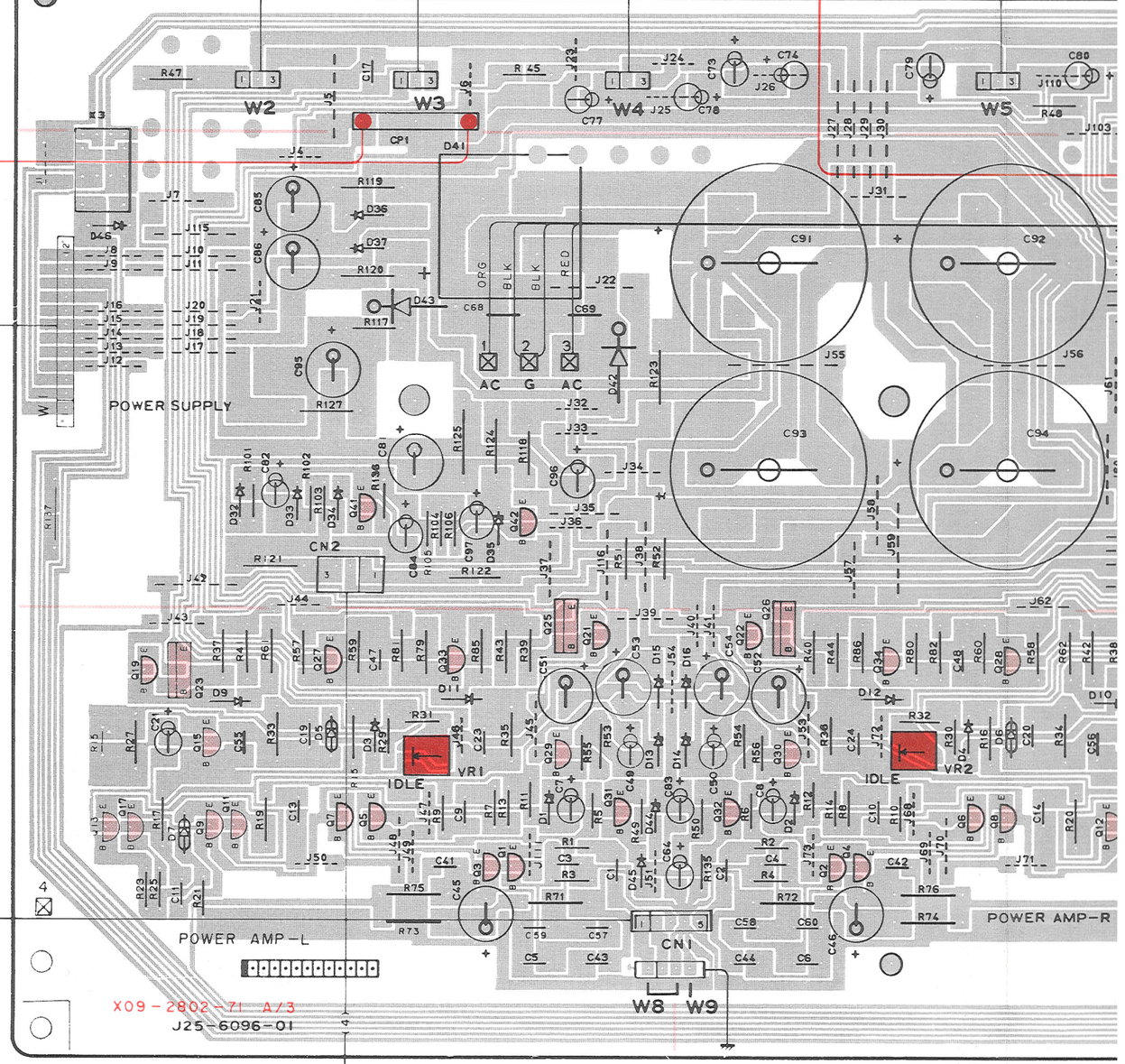
PREAMPLIFIER UNIT
(X08-226X-XX)



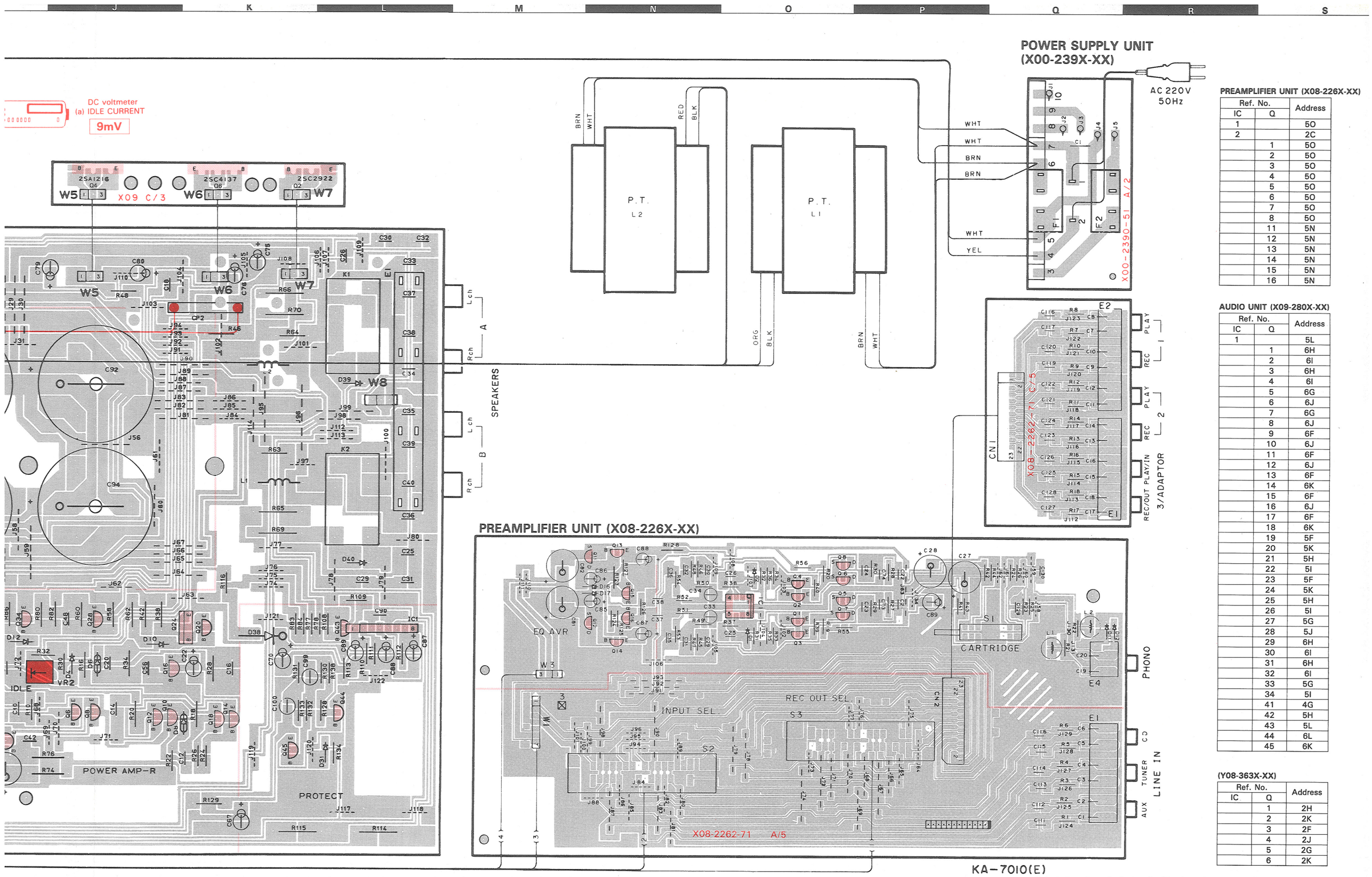








AUDIO UNIT (X09-280X-XX)



KA-7010(E)

Refer to the schematic diagram for the values of resistors and capacitors.

PREAMPLIFIER UNIT (X08-226X-XX)

Ref. No. IC	Ref. No. Q	Address
1		5O
2		2C
	1	5O
	2	5O
	3	5O
	4	5O
	5	5O
	6	5O
	7	5O
	8	5O
	11	5N
	12	5N
	13	5N
	14	5N
	15	5N
	16	5N

AUDIO UNIT (X09-280X-XX)

Ref. No. IC	Ref. No. Q	Address
1		5L
	1	6H
	2	6I
	3	6H
	4	6I
	5	6G
	6	6J
	7	6G
	8	6J
	9	6F
	10	6J
	11	6F
	12	6J
	13	6F
	14	6K
	15	6F
	16	6J
	17	6F
	18	6K
	19	5F
	20	5K
	21	5H
	22	5I
	23	5F
	24	5K
	25	5H
	26	5I
	27	5G
	28	5J
	29	6H
	30	6I
	31	6H
	32	6I
	33	5G
	34	5I
	41	4G
	42	5H
	43	5L
	44	6L
	45	6K

(Y08-363X-XX)

Ref. No. IC	Ref. No. Q	Address
	1	2H
	2	2K
	3	2F
	4	2J
	5	2G
	6	2K

PC BOARD (Foil side view)

PREAMPLIFIER UNIT (X08-226X-XX)

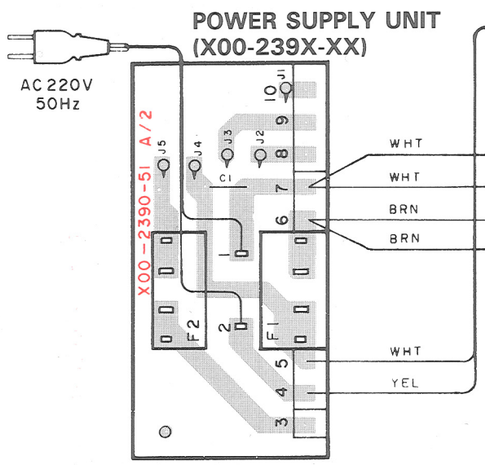
Ref. No.		Address
IC	Q	
1		5X
2		2AJ
	1	5X
	2	5X
	3	5X
	4	5X
	5	5X
	6	5X
	7	5X
	8	5X
	11	5Y
	12	5Y
	13	5Y
	14	5Y
	15	5Y
	16	5Y

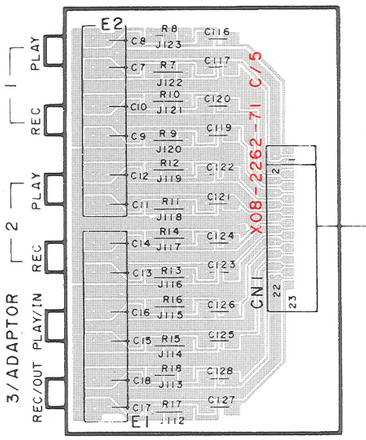
AUDIO UNIT (X09-280X-XX)

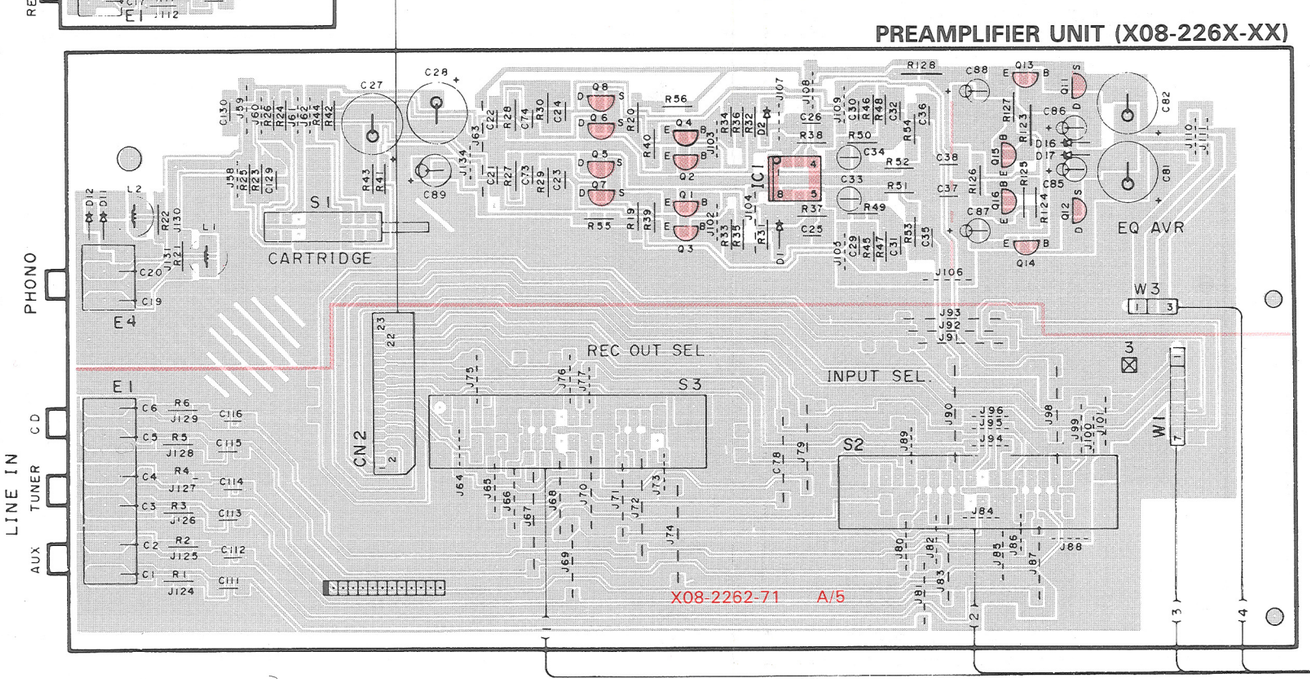
Ref. No.		Address
IC	Q	
1		5AA
	1	6AE
	2	6AD
	3	6AF
	4	6AD
	5	6AF
	6	6AC
	7	6AF
	8	6AC
	9	6AG
	10	6AC
	11	6AG
	12	6AC
	13	6AG
	14	6AB
	15	6AG
	16	6AC
	17	6AG
	18	6AB
	19	5AG
	20	5AB
	21	5AE
	22	5AD
	23	5AG
	24	5AC
	25	5AE
	26	5AD
	27	5AF
	28	5AC
	29	6AE
	30	6AD
	31	6AE
	32	6AD
	33	5AF
	34	5AD
	41	5AF
	42	5AE
	43	5AA
	44	6AA
	45	6AB

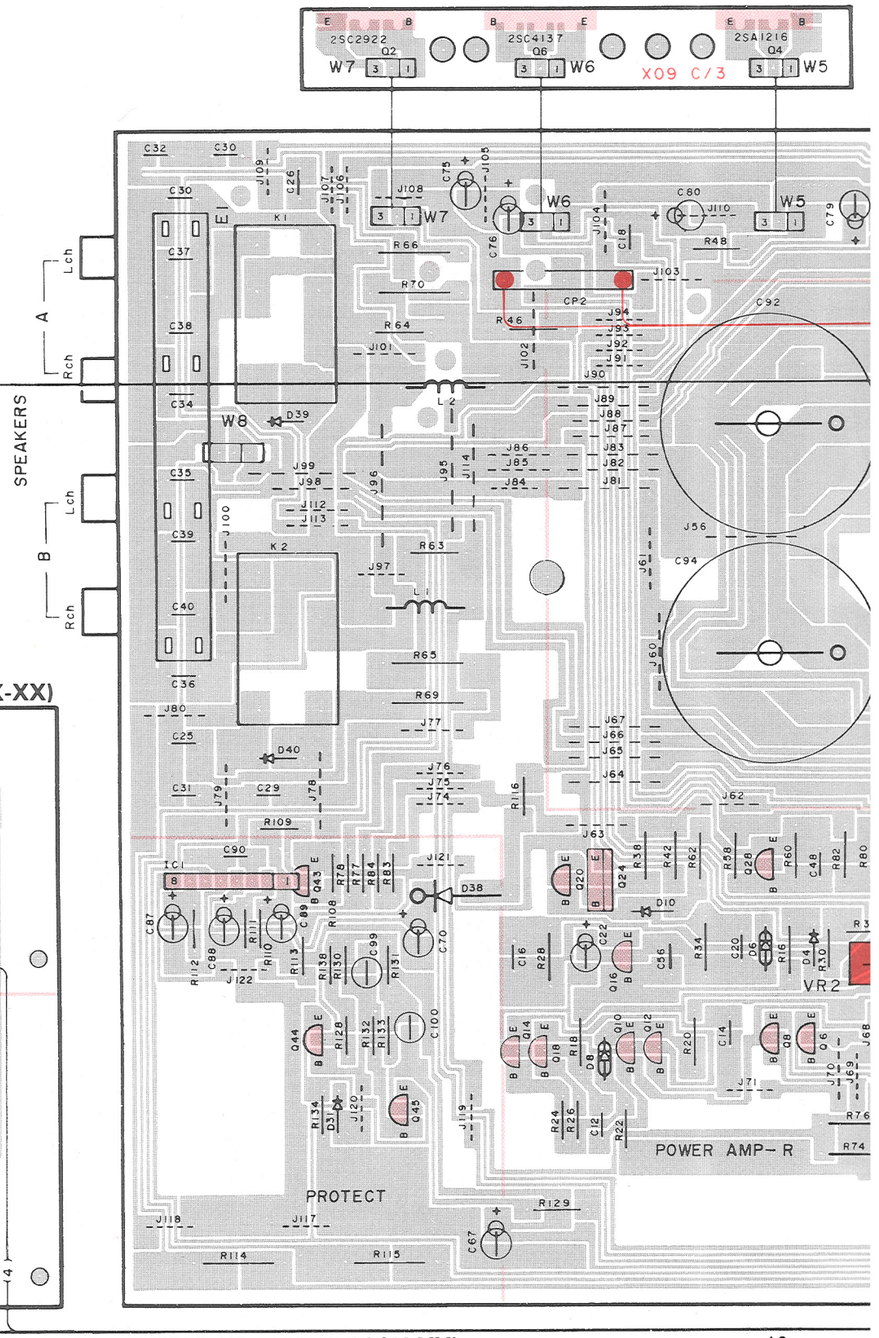
(Y08-363X-XX)

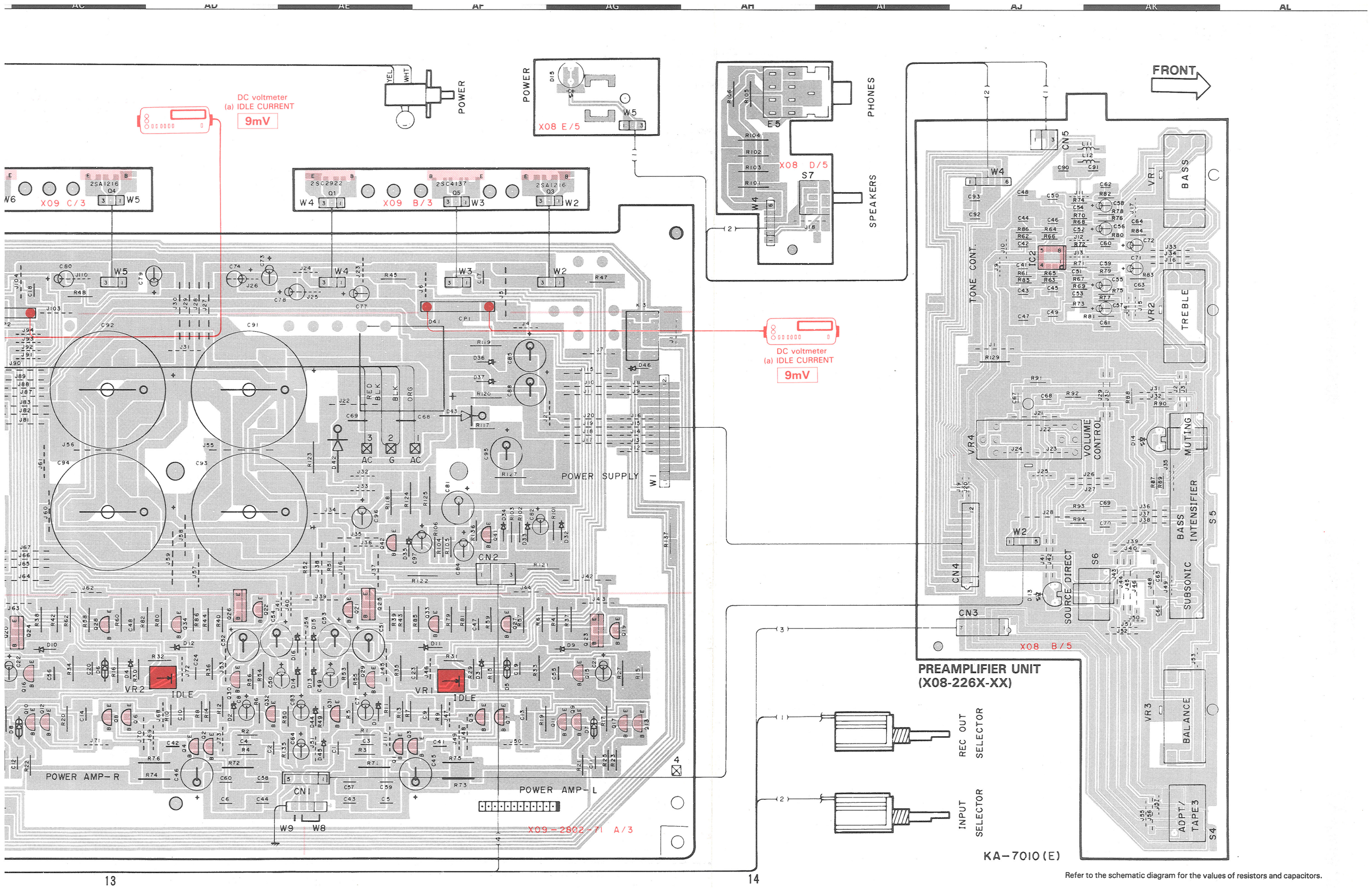
Ref. No.		Address
IC	Q	
	1	2AE
	2	2AB
	3	2AG
	4	2AC
	5	2AF
	6	2AB











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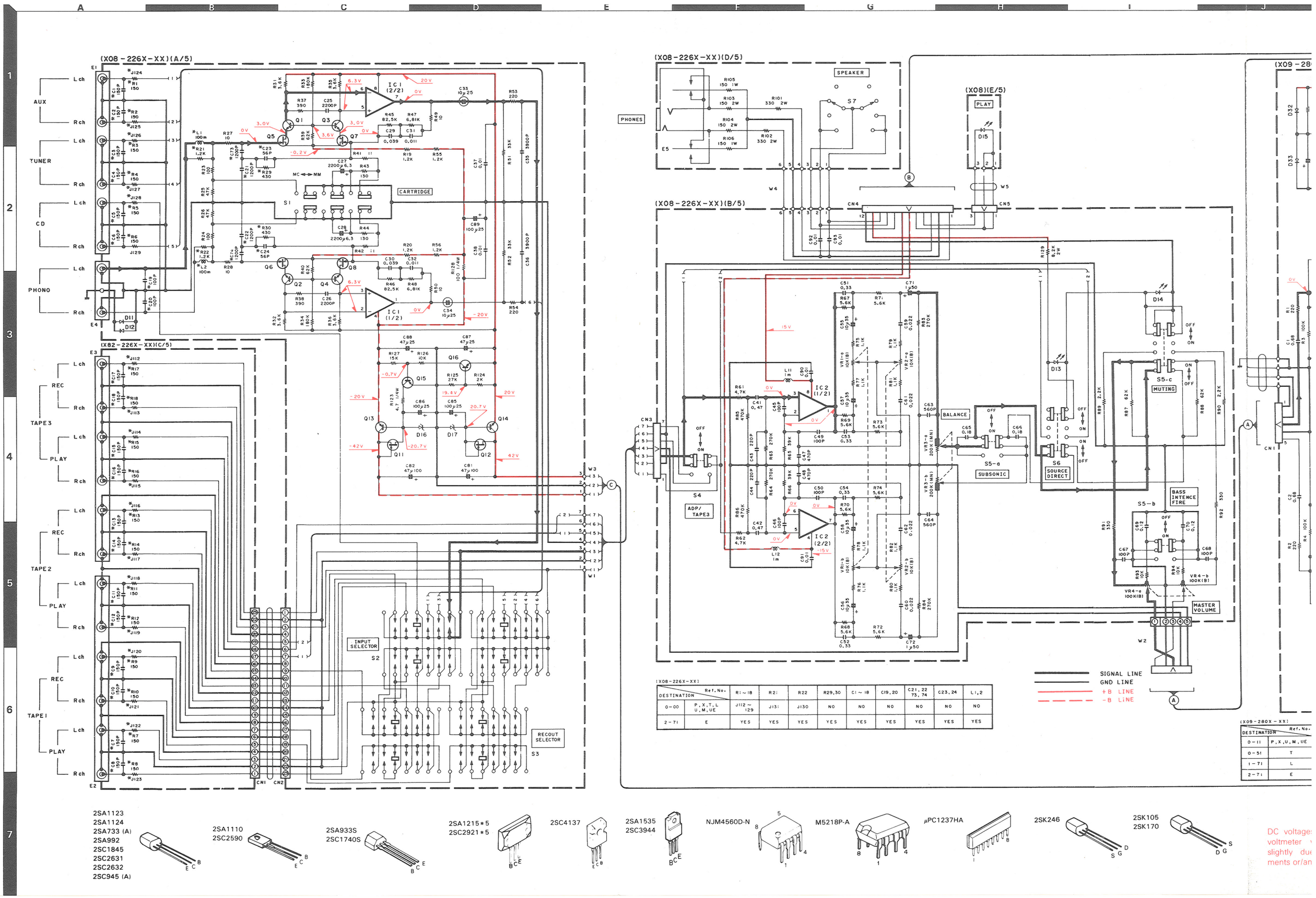
Refer to the schematic diagram for the values of resistors and capacitors.



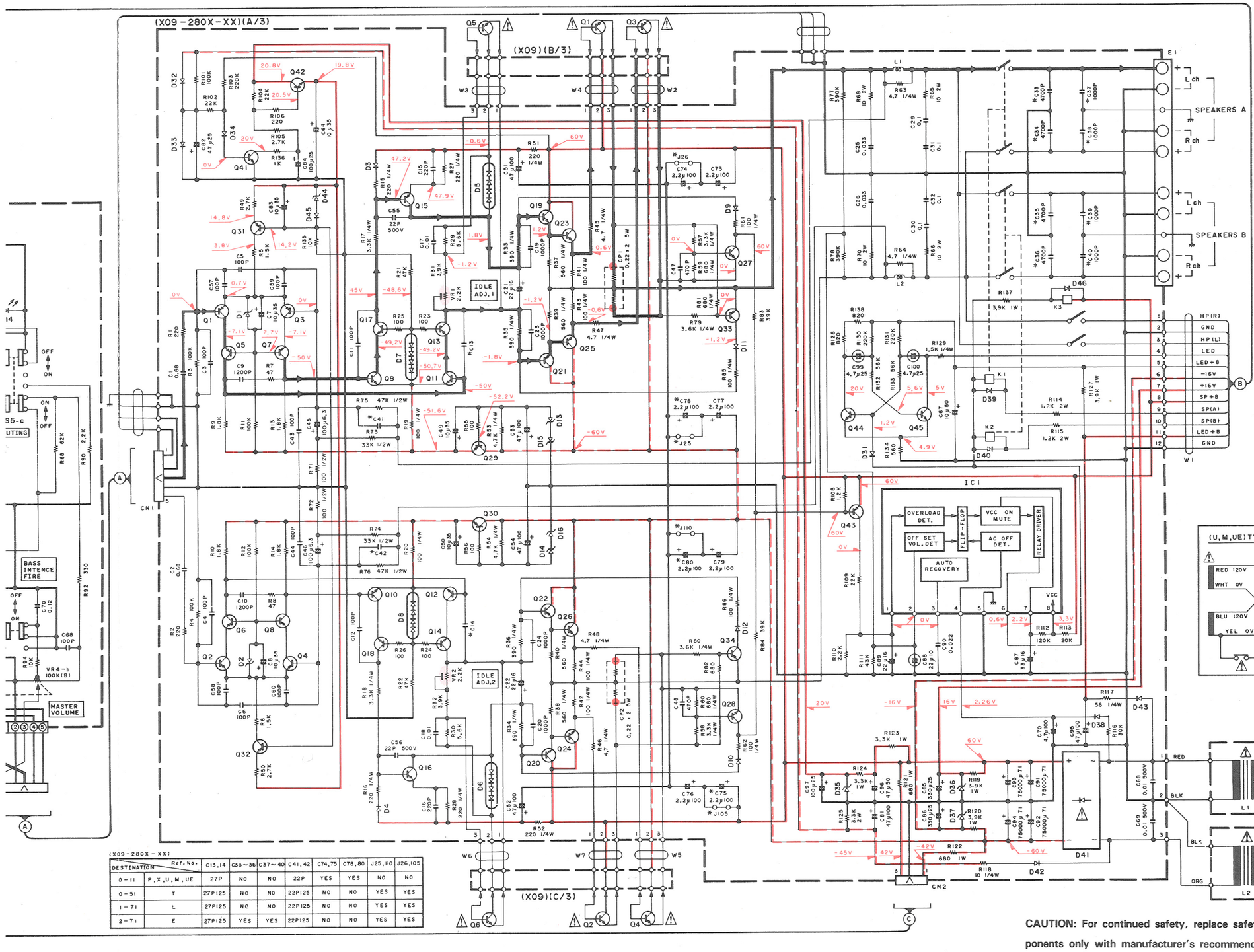
(X08-226X-XX)

DESTINATION \ Ref. No.		R1~18	R21	R22	R29,30	C1~18	C19,20	C21,22 73,74	C23,24	L1,2
0-00	P,X,T,L U,M,UE	J112~129	J131	J130	NO	NO	NO	NO	NO	NO
2-71	E	YES	YES	YES	YES	YES	YES	YES	YES	YES

(X09-280X-XX)

DESTINATION \ Ref. No.	
0-11	P,X,U,M,UE
0-51	T
1-71	L
2-71	E

DC voltages
voltmeter
slightly due
ments or/an



(X09-280X-XX) DESTINATION	Ref. No.	C13,14	C33~36	C37~40	C41,42	C74,75	C78,80	J25,110	J26,105
0-11	P,X,U,M,UE	27P	NO	NO	22P	YES	YES	NO	NO
0-51	T	27P125	NO	NO	22P125	NO	NO	YES	YES
1-71	L	27P125	NO	NO	22P125	NO	NO	YES	YES
2-71	E	27P125	YES	YES	22P125	NO	NO	YES	YES

(X08-226X-XX)

IC1	: MJM4560D-N
IC2	: M5218P-A
Q1~4	: 2SC945(A)(Q,P) or 2SC1740S(Q,R)
Q5~8	: 2SK170(BL,V)
Q11,12	: 2SK105(H) or 2SK246(GR)
Q13	: 2SA1110(Q,R)
Q14	: 2SC2590(Q,R)
Q15,16	: 2SA733(A)(Q,P) or 2SA933S(Q,R)
D1,2,11,12	: 1SS133 or HSS104
D13~15	: B30-0431-05
D16,17	: RD20JS(B) or HZS20S(B)

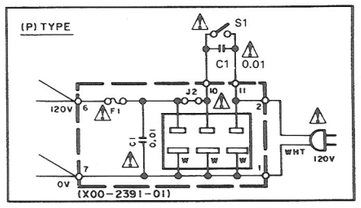
(Y08-363X-XX)

Q1,2	: 2SC2922*5
Q3,4	: 2SA1216*5
Q5,6	: 2SC4137

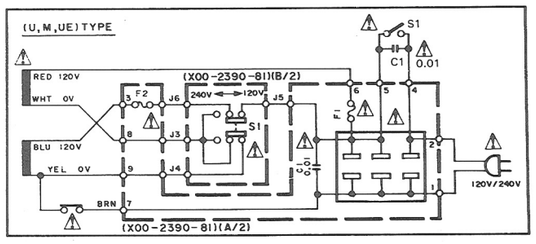
(X09-280X-XX)

IC1	: μPC1237HA
Q1~8,33,34,43	: 2SA992(F,E)
Q9~14,17,18	: 2SC2632(R,S)
Q15,16	: 2SA1124(R,S)
Q19,20	: 2SC2631(R,S)
Q21,22	: 2SA1123(R,S)
Q23,24	: 2SC3944(R,S)
Q25,26	: 2SA1535(R,S)
Q27,28,41,42	: 2SC1845(F,E)
Q29,30	: 2SA1110(R,S)
Q31,32	: 2SA733(A)(Q,P) or 2SA933S(Q,R)
Q44,45	: 2SC945(A)(Q,P) or 2SC1740S(Q,R)
D1,2	: RD8.2JS(B) or HZS8.2S(B)
D3,4,45	: 1SS133
D5~8	: MA27Q(A) or HSS104
D9~12,31~34,39,40,46	: 1SS131 or HSS104A
D13~16	: RD24ES(B) or HZS24N(B)
D35	: RD20JS(B) or HZS20S(B)
D36,37	: RD16ES(B) or HZS16N(B)
D38,42,43	: GP10D-5007L
D41	: D5FB20*1
D44	: RD5.1JS(B2) or HZS5.1S(B2)

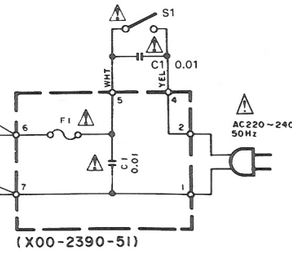
(P) TYPE

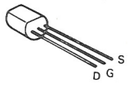


(U,M,UE) TYPE



(E,X,T,L) TYPE





DC voltages are as measured with a high impedance voltmeter with no signal input. Values may vary slightly due to variations between individual instruments or/and units.

Les tensions c.c. doivent être mesurées avec un voltmètre à haute impédance sans signal d'entrée. Les valeurs peuvent différer légèrement du fait des variations inhérentes aux appareils et aux instruments de mesure individuels.

Die angegebenen Gleichspannungswerte wurden mit einem hochohmigen Spannungsmesser ohne Eingangssignal gemessen. Dabei schwanden die Meßwerte aufgrund von Unterschieden zwischen einzelnen Instrumenten oder Geräten u.U. geringfügig.

CAUTION: For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). ⚠ Indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

KA-7010(E)

Y08-3622-71

KA-7010

KENWOOD

EXPLODED VIEW

Parts with the exploded numbers larger than 700 are not supplied.

PARTS LIST

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Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Desti-nation 仕向	Re-marks 備考
			KA-7010			
1	1A	*	A01-1715-02	METALLIC CABINET		
2	3B	*	A20-5668-02	PANEL ASSY	PUUEMX	
2	3B	*	A20-5736-02	PANEL ASSY	TEL	
-			B46-0094-03	WARRANTY CARD	UUE	
-			B46-0095-03	WARRANTY CARD	UUE	
-			B46-0096-13	WARRANTY CARD	X	
-			B46-0121-03	WARRANTY CARD	P	
-			B46-0122-13	WARRANTY CARD	EL	
-			B46-0143-03	WARRANTY CARD	T	
-		*	B50-9259-00	INSTRUCTION MANUAL		
-		*	B50-9260-00	INSTRUCTION MANUAL	PMEL	
-		*	B50-9261-00	INSTRUCTION MANUAL	M	
-		*	B50-9262-00	INSTRUCTION MANUAL	EL	
-			B58-0223-04	CAUTION CARD (PRE-SET 120V)	U	
-			B58-0513-04	CAUTION CARD (PRESET220-240)	UE	
-			B58-0803-13	CAUTION CARD	E	
⚠ C1			C91-0023-05	CERAMIC 0.01UF AC250V	UUEM	
⚠ C1			C91-0647-05	CERAMIC 0.01UF P	PXTEL	
3	2B		D21-1492-04	EXTENSION SHAFT		
4	2C	*	D21-1505-03	EXTENSION SHAFT		
⚠ 5	1D		E30-0459-05	AC POWER CORD	EL	
⚠ 5	1D		E30-0812-05	AC POWER CORD	UUEM	
⚠ 5	1D		E30-0974-05	AC POWER CORD	P	
⚠ 5	1D		E30-1341-05	AC POWER CORD	X	
⚠ 5	1D		E30-1416-05	AC POWER CORD	T	
⚠ F1	1C		F05-3121-05	FUSE (SEMKO) (250V T3.15A)	XTEL	
⚠ F1	1C		F05-6027-05	FUSE (UL) (250V 6A)	P	
⚠ F1 ,F2	1C		F05-3022-05	FUSE (250V 3A)	UUEM	
-		*	H01-8348-04	ITEM CARTON CASE		
-		*	H10-3738-02	POLYSTYRENE FOAMED FIXTURE		
-		*	H10-3739-02	POLYSTYRENE FOAMED FIXTURE		
-			H25-0225-04	PROTECTION BAG (850X450X0.03)		
-			H25-0232-04	PROTECTION BAG (235X350X0.03)		
10	3C,3D		J02-1002-05	FOOT		
⚠ 11	1D		J42-0083-05	POWER CORD BUSHING		
-			J61-0307-05	WIRE BAND		
12	2A		K29-3363-04	KNOB (POWER)		
13	3A		K29-3402-04	KNOB (BASS/TREBLE/BALANCE)		
14	3B		K29-3403-04	KNOB ASSY		
15	2C		K29-3404-04	KNOB		
16	3A		K29-3406-04	KNOB		
17	3B	*	K29-3506-04	KNOB ASSY		
19	3A	*	K29-3507-04	KNOB (VOLUME CONTROL)		
⚠ 20	1B	*	L01-5631-05	POWER TRANSFORMER (R)	P	
⚠ 20	1B	*	L01-5632-05	POWER TRANSFORMER (R)	EL	
⚠ 20	1B	*	L01-5635-05	POWER TRANSFORMER (R)	UUEM	
⚠ 20	1B	*	L01-5637-05	POWER TRANSFORMER (R)	XT	
⚠ 21	1B	*	L01-5641-05	POWER TRANSFORMER (L)	P	
⚠ 21	1B	*	L01-5642-05	POWER TRANSFORMER (L)	EL	
⚠ 21	1B	*	L01-5645-05	POWER TRANSFORMER (L)	UUEM	

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PARTS LIST

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⚠ 21	1B	*	L01-5647-05	POWER TRANSFORMER (L)	XT	
C			N09-1445-05	SET SCREW (M3X8)		
D			N09-1777-05	SEMS (TAPTITE SCREW)		
G			N29-0035-05	PUSH RIVET (3.5X5.5)		
H			N29-0255-05	PUSH RIVET		
J	1D		N08-0128-35	BINDING POST (GND)		
K			N09-0333-05	TAPPING SCREW (3X12)		
L			N09-0301-05	STEPPED SCREW		
22	2B	*	S90-0110-05	REMOTE SWITCH SHAFT (REC OUT)		
23	2B	*	S90-0111-05	REMOTE SWITCH SHAFT (SELECTOR)		
⚠ S1	2B		S40-1073-05	PUSH SWITCH (POWER TYPE)	UUEMXT	
⚠ S1	2B		S40-1073-05	PUSH SWITCH (POWER TYPE)	EL	
⚠ S1	2B		S40-1094-05	PUSH SWITCH (POWER TYPE)	P	
⚠ Q1 ,2			2SC2922*5	TRANSISTOR		
⚠ Q3 ,4			2SA1216*5	TRANSISTOR		
⚠ Q5 ,6			2SC4137	TRANSISTOR		
POWER SUPPLY UNIT (X00-239X-XX, 0-51:X,T,E,L; 0-81:U,UE,M; 1-01:P)						
⚠ C1			C91-0023-05	CERAMIC 0.01UF AC250V	UUEM	
⚠ C1			C91-0647-05	CERAMIC 0.01UF P	PXTEL	
⚠ 30	1C	*	E03-0077-05	AC OUTLET	UUEM	
⚠ 30	1C	*	E03-0078-05	AC OUTLET	P	
31	1D		J13-0041-05	FUSE CLIP	PUUEM	
31	1D		J13-0054-05	FUSE CLIP	XTEL	
⚠ S1			S31-2126-05	SLIDE SWITCH (POWER TYPE)	UUEM	
PREAMPLIFIER UNIT (X08-226X-XX, 0-00:P,U,UE,M,X,T,L; 2-71:E)						
D13 -15	2A		B30-0431-05	LED(LN21CPH)		
C1 -18			CF92FV1H151K	MF 150PF K	E	
C19 ,20			CF92FV1H101K	MF 100PF K	E	
C21 ,22			CF92FV1H122J	MF 1200PF J	E	
C23 ,24			CC45FSL1H560J	CERAMIC 56PF J	E	
C25 ,26			CF92FV1H222J	MF 2200PF J		
C27 ,28			CE04KW0J222M	ELECTRO 2200UF 6.3WV		
C29 ,30			CF92FV1H393J	MF 0.039UF J		
C31 ,32			CF92FV1H113J	MF 0.011UF J		
C33 ,34			C90-1332-05	NP-ELEC 10UF 25WV		
C35 ,36			CF92FV1H392J	MF 3900PF J		
C37 ,38			CF92FV1H103J	MF 0.010UF J		
C41 ,42			CF92FV1H474J	MF 0.47UF J		
C43 ,44			CQ09FS1H221J	POLYSTY 220PF J		
C45 ,46			CQ09FS1H101J	POLYSTY 100PF J		
C47 ,48			CQ09FS1H471J	POLYSTY 470PF J		
C49 ,50			CQ09FS1H101J	POLYSTY 100PF J		
C51 -54			CF92FV1H334J	MF 0.33UF J		
C55 -58			CE04KW1V100M	ELECTRO 10UF 35WV		
C59 -62			CF92FV1H223J	MF 0.022UF J		
C63 ,64			CK45FB1H561K	CERAMIC 560PF K		
C65 ,66			CF92FV1H184J	MF 0.18UF J		
C67 ,68			CQ09FS1H101J	POLYSTY 100PF J		
C69 ,70			CF92FV1H124J	MF 0.12UF J		
C71 ,72			CE04KW1H010M	ELECTRO 1.0UF 50WV		
C73 ,74			CF92FV1H122J	MF 1200PF J	E	

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C81 ,82			CE04KW2A470M	ELECTRO 47UF 100WV		
C85 ,86			CE04KW1E101M	ELECTRO 100UF 25WV		
C87 ,88			CE04KW1E470M	ELECTRO 47UF 25WV		
C89			CE04KW1E101M	ELECTRO 100UF 25WV		
C90 -93			CF92FV1H103J	MF 0.010UF J		
CN1		*	E10-2304-05	FLAT CABLE CONNECTOR		
CN2		*	E10-2303-05	FLAT CABLE CONNECTOR		
E1 -3	1D		E13-0621-05	PHONO JACK (6P)(TAPE/DAT)		
E4	2D		E13-0294-05	PHONO JACK (PHONO)		
E5	2B		E11-0193-05	PHONE JACK (PHONES)		
L1 ,2			L40-1011-47	SMALL FIXED INDUCTOR(100UH,K)	E	
L11 ,12			L40-1021-14	SMALL FIXED INDUCTOR(1.0MH,K)		
R45 ,46			RN14BK2C8252FTS	RN 82.5K F 1/6W		
R47 ,48			RN14BK2C6811FTS	RN 6.81K F 1/6W		
R101,102			RS14KB3D331JTE	FL-PROOF RS 330 J 2W		
R103,104		*	RS14KB3D151JTE	FL-PROOF RS 150 J 2W		
R105,106		*	RS14KB3A151JTE	FL-PROOF RS 150 J 1W		
R123			RD14GB2E4R7JTS	FL-PROOF RD 4.7 J 1/4W		
R128			RD14GB2E101JTS	FL-PROOF RD 100 J 1/4W		
R129		*	RS14KB3D822JTE	FL-PROOF RS 8.2K J 2W		
VR1 ,2	2A	*	R06-3060-05	POTENTIOMETER (BASS/TREBLE)		
VR3	2A		R06-5166-05	POTENTIOMETER (BALANCE)		
VR4	2A	*	R06-5172-05	POTENTIOMETER (VOLUME CONTROL)		
S1	2D	*	S40-6036-05	PUSH SWITCH (CARTRIDGE)		
S2 ,3	2D		S90-0038-05	SLIDE SWITCH (SELECTOR)		
S4	2A		S40-2351-05	PUSH SWITCH (ADPT/TAPE)		
S5	2A	*	S42-3115-05	MULTIPLE PUSH SWITCH (BASS)		
S6	2A		S40-4074-05	PUSH SWITCH (SOURCE)		
S7	2B	*	S29-2035-05	ROTARY SWITCH (PSEAKERS)		
D11 ,12	2B		HSS104	DIODE		
D11 ,12			1SS133	DIODE		
D16 ,17			HZS20S(B)	ZENER DIODE		
D16 ,17			RD20JS(B)	ZENER DIODE		
IC1			NJM4560D-N	IC(OP AMP X2)		
IC2			M5218P-A	IC(OP AMP X2)		
Q1 -4			2SC1740S(Q,R)	TRANSISTOR		
Q1 -4			2SC945(A)(Q,P)	TRANSISTOR		
Q5 -8			2SK170(BL)	FET		
Q5 -8			2SK170(V)	FET		
Q11 ,12			2SK105(H)	FET		
Q11 ,12			2SK246(GR)	FET		
Q13			2SA1110(Q,R)	TRANSISTOR		
Q14			2SC2590(Q,R)	TRANSISTOR		
Q15 ,16			2SA733(A)(Q,P)	TRANSISTOR		
Q15 ,16			2SA933S(Q,R)	TRANSISTOR		
AUDIO UNIT (X09-280X-XX, 0-11:P,U,UE,M,X; 0-51:T; 1-71:L; 2-71:E)						
C1 ,2			CF92FV1H684J	MF 0.68UF J		
C3 -6			CC45FSL1H101J	CERAMIC 100PF J	PUUEMX	
C3 -6			CQ09FS1H101J	POLYSTY 100PF J	TEL	
C7 ,8			CE04KW1V100M	ELECTRO 10UF 35WV		
C9 ,10			CF92FV1H122J	MF 1200PF J	TEL	
C9 ,10			CK45FB1H122K	CERAMIC 1200PF K	PUUEMX	

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KA-7010

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C11 ,12			CC45FSL1H101J	CERAMIC	100PF	J		
C13 ,14			CC45FSL1H270J	CERAMIC	27PF	J	PUUEMX	
C13 ,14		*	CQ09FS1H180J	PØLYSTY	18PF	J	TEL	
C15 ,16			CC45FSL1H221J	CERAMIC	220PF	J		
C17 ,18			CF92FV1H103J	MF	0.010UF	J		
C19 ,20			CK45FB1H102K	CERAMIC	1000PF	K		
C21 ,22			CE04KW1C220M	ELECTRØ	22UF	16WV		
C23 ,24			CK45FB1H102K	CERAMIC	1000PF	K		
C25 ,26			CF92FV1H333J	MF	0.033UF	J		
C29 -32			CF92FV1H104J	MF	0.10UF	J		
C33 -36			CF92FV1H472J	MF	4700PF	J	E	
C37 -40			CF92FV1H102J	MF	1000PF	J	E	
C41 ,42			CC45FSL1H220J	CERAMIC	22PF	J	PUUEMX	
C41 ,42			C91-0170-05	PØLYSTY	22PF	K	TEL	
C43 ,44			CC45FSL1H101J	CERAMIC	100PF	J	PUUEMX	
C43 ,44			CQ09FS1H101J	PØLYSTY	100PF	J	TEL	
C45 ,46		*	C90-1757-05	ELECTRØ	100MF	6.3WV		
C47 ,48			CK45FB1H471K	CERAMIC	470PF	K		
C49 ,50			CE04KW1V100M	ELECTRØ	10UF	35WV		
C51 -54			CE04KW2A470M	ELECTRØ	47UF	100WV		
C55 ,56		*	CC45FSL2H220J	CERAMIC	22PF	J		
C57 -60			CC45FSL1H101J	CERAMIC	100PF	J	PUUEMX	
C57 -60			CQ09FS1H101J	PØLYSTY	100PF	J	TEL	
C64			CE04KW1V100M	ELECTRØ	10UF	35WV		
C67			CE04KW1H100M	ELECTRØ	10UF	50WV		
C68 ,69			CK45FE2H103P	CERAMIC	0.010UF	P		
C70			CE04KW2A4R7M	ELECTRØ	4.7UF	100WV		
C73			CE04KW2A2R2M	ELECTRØ	2.2UF	100WV	TEL	
C73 -80			CE04KW2A2R2M	ELECTRØ	2.2UF	100WV	PUUEMX	
C76 ,77			CE04KW2A2R2M	ELECTRØ	2.2UF	100WV	TEL	
C79			CE04KW2A2R2M	ELECTRØ	2.2UF	100WV	TEL	
C81			CE04KW2A470M	ELECTRØ	47UF	100WV		
C82			CE04KW1E470M	ELECTRØ	47UF	25WV		
C83			CE04KW1V100M	ELECTRØ	10UF	35WV		
C84			CE04KW1E101M	ELECTRØ	100UF	25WV		
C85 ,86			CE04KW1E331M	ELECTRØ	330UF	25WV		
C87			CE04KW1C330M	ELECTRØ	33UF	16WV		
C88			C90-1333-05	NP-ELEC	22UF	10WV		
C89			CE04KW1C220M	ELECTRØ	22UF	16WV		
C90			CF92FV1H223J	MF	0.022UF	J		
C91 -94		*	C90-1749-15	ELECTRØ	7500MF	71WV	PUUEMX	
C91 -94		*	C90-1749-15	ELECTRØ	7500MF	71WV	EL	
C91 -94		*	C90-1751-05	ELECTRØ	7500MF	71WV	T	
C95			CE04KW2A470M	ELECTRØ	47UF	100WV		
C96			CE04KW1H470M	ELECTRØ	47UF	50WV		
C97			CE04KW1E101M	ELECTRØ	100UF	25WV		
C99 ,100			C90-1352-05	NP-ELEC	4.7UF	25WV		
E1	2C		E20-0832-05	SCREW TERMINAL BØARD			PUUEMX	
E1	2C		E20-0832-05	SCREW TERMINAL BØARD			L	
E1	2C	*	E20-0835-05	SCREW TERMINAL BØARD			TE	
L1 ,2			L39-0080-15	PHASE-CØMPENSATIØN CØIL				
CP1 ,2			R90-0187-05	MULTI-CØMP	0.22X2	K 5W		
R15 ,16			RD14AB2E221JTS	FL-PRØØF RD	220	J 1/4W		

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R17 ,18			RD14AB2E332JTS	FL-PROOF RD 3.3K J 1/4W		
R19 ,20			RD14AB2E101JTS	FL-PROOF RD 100 J 1/4W		
R27 ,28			RD14AB2E221JTS	FL-PROOF RD 220 J 1/4W		
R33 -36			RD14AB2E391JTS	FL-PROOF RD 390 J 1/4W		
R37 -40			RD14AB2E561JTS	FL-PROOF RD 560 J 1/4W		
R41 -44			RD14AB2E101JTS	FL-PROOF RD 100 J 1/4W		
R45 -48			RD14AB2E4R7JTS	FL-PROOF RD 4.7 J 1/4W		
R51 ,52			RD14AB2E221JTS	FL-PROOF RD 220 J 1/4W		
R53 ,54			RD14AB2E472JTS	FL-PROOF RD 4.7K J 1/4W		
R57 ,58			RD14AB2E332JTS	FL-PROOF RD 3.3K J 1/4W		
R59 ,60			RD14AB2E681JTS	FL-PROOF RD 680 J 1/4W		
R63 ,64			RD14AB2E4R7JTS	FL-PROOF RD 4.7 J 1/4W		
R65 ,66			RS14DB3D100JTE	FL-PROOF RS 10 J 2W		
R69 ,70			RS14DB3D100JTE	FL-PROOF RS 10 J 2W		
R71 ,72			R92-0390-05	CARBON FILM 100 J 1/2W		
R73 ,74		*	R92-0395-05	CARBON FILM 23 J 1/2W		
R75 ,76		*	R92-0396-05	CARBON FILM 47 J 1/2W		
R79 ,80			RD14AB2E362JTS	FL-PROOF RD 3.6K J 1/4W		
R81 ,82			RD14AB2E681JTS	FL-PROOF RD 680 J 1/4W		
R114,115			RS14DB3D122JTE	FL-PROOF RS 1.2K J 2W		
R117			RD14AB2E560JTS	FL-PROOF RD 56 J 1/4W		
R118			RD14AB2E100JTS	FL-PROOF RD 10 J 1/4W		
R119,120			RS14DB3A392JTE	FL-PROOF RS 3.9K J 1W		
R121,122			RS14DB3A681JTE	FL-PROOF RS 680 J 1W		
R123,124			RS14DB3A332JTE	FL-PROOF RS 3.3K J 1W		
R125			RS14DB3D332JTE	FL-PROOF RS 3.3K J 2W		
R127			RS14DB3A392JTE	FL-PROOF RS 3.9K J 1W		
R129			RD14AB2E152JTS	FL-PROOF RD 1.5K J 1/4W		
R137			RS14DB3A392JTE	FL-PROOF RS 3.9K J 1W		
VR1 ,2			R12-1085-05	TRIMMING POT.		
K1 ,2		*	S51-2088-05	MAGNETIC RELAY		
K3			S51-2075-05	MAGNETIC RELAY		
D1 ,2			HZS8.2S(B)	ZENER DIODE		
D1 ,2			RD8.2JS(B)	ZENER DIODE		
D3 ,4			HSS104	DIODE		
D3 ,4			1SS133	DIODE		
D5 -8			MA27Q(A)	VARISTOR		
D9 -12			HSS104A	DIODE		
D9 -12			1SS131	DIODE		
D13 -16			HZS24N(B)	ZENER DIODE		
D13 -16			RD24ES(B)	ZENER DIODE		
D31 -34			HSS104A	DIODE		
D31 -34			1SS131	DIODE		
D35			HZS20S(B)	ZENER DIODE		
D35			RD20JS(B)	ZENER DIODE		
D36 ,37			HZS16N(B)	ZENER DIODE		
D36 ,37			RD16ES(B)	ZENER DIODE		
D38			GP10D-5007L	DIODE		
D39 ,40			HSS104A	DIODE		
D39 ,40			1SS131	DIODE		
⚠ D41			D5FB20*1	DIODE		
D42 ,43			GP10D-5007L	DIODE		
D44			HZS5.1S(B2)	ZENER DIODE		
D44			RD5.1JS(B2)	ZENER DIODE		

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KA-7010

PARTS LIST

* New Parts
Parts without **Parts No.** are not supplied.
Les articles non mentionnes dans le **Parts No.** ne sont pas fournis.
Telle ohne **Parts No.** werden nicht geliefert.

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Destination 仕向	Remarks 備考
D45			HSS104	DIODE		
D45			1SS133	DIODE		
D46			HSS104A	DIODE		
D46			1SS131	DIODE		
IC1			UPC1237HA	IC(POWER AMP)		
Q1 -8			2SA992(F,E)	TRANSISTOR		
Q9 -14			2SC2632(R,S)	TRANSISTOR		
Q15 ,16			2SA1124(R,S)	TRANSISTOR		
Q17 ,18			2SC2632(R,S)	TRANSISTOR		
Q19 ,20			2SC2631(R,S)	TRANSISTOR		
Q21 ,22			2SA1123(R,S)	TRANSISTOR		
Q23 ,24			2SC3944(R,S)	TRANSISTOR		
Q25 ,26			2SA1535(R,S)	TRANSISTOR		
Q27 ,28			2SC1845(F,E)	TRANSISTOR		
Q29 ,30			2SA1110(R,S)	TRANSISTOR		
Q31 ,32			2SA733(A)(Q,P)	TRANSISTOR		
Q31 ,32			2SA933S(Q,R)	TRANSISTOR		
Q33 ,34			2SA992(F,E)	TRANSISTOR		
Q41 ,42			2SC1845(F,E)	TRANSISTOR		
Q43			2SA992(F,E)	TRANSISTOR		
Q44 ,45			2SC1740S(Q,R)	TRANSISTOR		
Q44 ,45			2SC945(A)(Q,P)	TRANSISTOR		

L: Scandinavia **K**: USA **P**: Canada **E**: Europe
U: PX(Far East, Hawaii) **T**: England **M**: Other Areas
UE: AAFES(Europe) **X**: Australia

⚠ indicates safety critical components.

KA-7010

SPECIFICATIONS

POWER OUTPUT
Rated Power
100 watts per channel minimum RMS, both channels driven, at 8 ohms from 20 Hz to 20,000 Hz with no more than 0.06% total harmonic distortion
Maximum Continuous Power Output (DIN)
1 kHz at 4 ohms ..... 155 W
Maximum Continuous Power Output (DIN)
1 kHz at 8 ohms ..... 105 W
Maximum Continuous Power Output (IEC/NF)
from 63 Hz to 12,500 Hz, 0.7% Total Harmonic Distortion at 8 ohms ..... 105 W + 105 W
Dynamic Power ..... 270 W per channel at 2 ohms
200 W per channel at 4 ohms
125 W per channel at 8 ohms

TOTAL HARMONIC DISTORTION
(LINE input to SPEAKER output)
Rated Output Power at 8 ohms, 20 Hz ~ 20,000 Hz 0.06%
1/2 Rated Output Power at 8 ohms, 20 Hz ~ 20,000 Hz 0.05%
Rated Output Power at 8 ohms, 1 kHz 0.001%

INTER MODULATION DISTORTION (60 Hz:7 kHz = 4:1)
at Rated Output Power 0.005%

FREQUENCY RESPONSE
LINE to SPEAKER ..... 5 Hz to 100 kHz +0 dB, −3 dB
PHONO "RIAA" Response
PHONO (MM) Input ..... 20 Hz to 20 kHz ±0.3 dB
PHONO (MC) Input ..... 20 Hz to 20 kHz ±0.3 dB

SIGNAL TO NOISE RATIO
PHONO (MM) (IHF-A) (IHF'66) ..87 dB for 2.5 mV input
PHONO (MC) (IHF-A) (IHF'66) ..70 dB for 0.25 mV input
TUNER/AUX/TAPE
(IHF-A) (IHF'66) ..... 110 dB for 150 mV input
PHONO (MM) (IHF-A) ..... 78 dB
PHONO (MC) (IHF-A) ..... 70 dB
TUNER/AUX/TAPE (IHF-A) ..... 80 dB
PHONO (MM) at Unweighted, 50 mW Output (DIN) ..... 58 dB
TUNER/AUX/TAPE at Unweighted, 50 mW Output (DIN) ..... 60 dB

FILTER ..... SUBSONIC 18 Hz 6 dB/oct

TONE CONTROL
BASS ..... ±10 dB at 100 Hz
TREBLE ..... ±10 dB at 10 kHz

BASS INTENSIFIER ..... 20 Hz +9 dB, 100 Hz +3 dB
DAMPING FACTOR ..... 160/50 Hz at 8 ohms

CHANNEL SEPARATION at 1 kHz (DIN)
PHONO (MM) ..... 52 dB (Terminated with 2.2 kohms)
TUNER/AUX/TAPE ..... 55 dB (Terminated with 47 kohms +250 pF)

INPUT SENSITIVITY/IMPEDANCE
PHONO (MM) ..... 2.5 mV 47 kohms
PHONO (MC) ..... 0.2 mV 100 ohms
TUNER/AUX/TAPE ..... 150 mV 47 kohms

PHONO MAXIMUM INPUT LEVEL (PHONO to TAPE REC)
MM at 1 kHz 0.05% T.H.D. ..... 200 mV
MC at 1 kHz 0.05% T.H.D. ..... 15 mV

PHONO INPUT CAPACITY (DIN) ..... 160 pF

OUTPUT LEVEL/IMPEDANCE
TAPE REC (Pin) ..... 150 mV 220 ohms

GENERAL
Power Consumption
5 A ..... Canada Model
300 W ..... UK & European Models
300 W ..... Other Countries
AC Outlet ..... Switched × 2 (100 W)
Unswitched × 1 (400 W)
Except UK, European & Australia Models
Dimensions ..... W : 440 mm (17-5/16")
H : 148 mm (5-13/16")
D : 398 mm (15-11/16")
Weight ..... Net 15.0 kg (33 lb)

Kenwood follows a policy of continuous advancements in development. For this reason specifications may be changed without notice.

Kenwood poursuit une politique de progrès constants en ce qui doncerne le développement. Pour cette raison, les spécifications sont sujettes à modifications sans préavis.

Kenwood strebt ständige, Verbesserungen in der Entwicklung an. Daher bleiben Änderungen der technischen Daten jederzeit vorbehalten.

Note:

Component and circuitry are subject to modification to insure best operation under differing local conditions. This manual is based on, the Europe (E) standard, and provides information on regional circuit modification through use of alternate schematic diagrams, and information on regional component variations through use of parts list.